

Claims

What is claimed is:

1. A blowby gas separation system for an internal combustion engine comprising:

a blowby gas transfer passage located externally of the engine and adapted to collect blowby gases from the engine;

condensing media in the transfer passage adapted to condense oil from the blowby gases; and

a collection unit in fluid communication with the transfer passage and adapted to receive the blowby gases from the transfer passage and separate condensed oil from the blowby gases.

2. The blowby gas separation system of Claim 1 including an oil re-circulation line in fluid communication with the collection unit and adapted to return the separated condensed oil to the engine.

3. The blowby gas separation system of Claim 1 including a reservoir for storing the separated condensed oil.

4. The blowby gas separation system of Claim 1 in which the blowby gases transfer passage is disposed with respect to the collection unit such that condensed oil in the transfer tube will pass under gravity into the collection unit.

5. The blowby gas separation system of Claim 1 in which the condensing media comprises a helical coil extending along at least a portion of the transfer passage.

6. The blowby gas separation system of Claim 2 in which the condensing media comprises a helical coil extending along at least a portion of the transfer passage.

7. The blowby gas separation system of Claim 1 in which the condensing media comprises a wire mesh extending along at least a portion of the transfer passage.

8. The blowby gas separation system of Claim 1 in which the condensing media comprises a wire mesh extending along at least a portion of the transfer passage.

9. The blowby gas separation system of Claim 1 in which the collection unit includes condensing media.

10. The blowby gas separation system of Claim 1 further including a gas re-circulation line for re-circulating separated gases from the collection unit to an engine air intake system.

11. The blowby gases separation system of Claim 2 in which the oil re-circulation line includes a valve adapted to prevent blowby gases exiting the engine through the oil re-circulation line.

12. The blowby gases separation system of Claim 2 in which the collection unit comprises a housing having a top and a base, a mouth of the oil re-circulation line being located adjacent a base of the housing, and wherein a mouth of the gas re-circulation line is located intermediate a top and base of the housing.

13. The blowby gases separation system of Claim 11 in which the collection unit comprises a housing having a top and a base, a mouth of the oil re-circulation line being located adjacent a base of the housing, and wherein a mouth of the gas re-circulation line is located intermediate a top and base of the housing.

14. A method of separating oil from blowby gases produced by an internal combustion engine comprising the steps of:

transferring blowby gases from the engine into a blowby gas transfer passage located externally of the engine;

passing the blowby gases through condensing media in the transfer passage to condense oil from the blowby gases;

collecting the condensed oil and the blowby gases from the transfer passage in a collection unit; and

separating the condensed oil and the blowby gases in the collection unit.

15. The method of Claim 14 including the step of re-circulating the condensed oil to the engine.

16. The method of Claim 14 including the step of storing the separated condensed oil in a reservoir.

17. The method of Claim 14 including the step of re-circulating separated blowby gases from the collection unit to an engine air intake system.

18. The method of claim 14 including the steps of re-circulating the condensed oil to the engine and re-circulating separated blowby gases from the collection unit to an engine air intake system.

19. The method of Claim 14 including the steps of storing the separated condensed oil in a reservoir and re-circulating separated blowby gases from the collection unit to an engine air intake system.

20. A gas separation system for an internal combustion engine comprising:
a gas transfer passage located externally of the engine and adapted to collect gases from the engine;
means in the transfer passage for condensing oil from the gases; and
a collection unit in fluid communication with the transfer passage and adapted to receive the gases from the transfer passage and separate condensed oil from the gases.